

**REMARKS**

Claims 1-16 are pending in the application, including new claims 7-16, which are added by the present Amendment.

By the present Amendment, Applicant amends claim 4.

Claims 2 and 4 were rejected as being anticipated by Miyamoto et al. (US 5,900,961).

Claims 3 and 6 were rejected as being obvious over Miyamoto et al. in view of Suwa (US 4,533,976). Although the Office Action only explicitly refers to claim 3 as being rejected over Miyamoto et al. in view of Suwa, the features of claim 6 are also discussed in the same rejection.

Claim 5 was rejected as being obvious over Miyamoto et al. in view of Suzuki et al. (JP 9-15521).

Claim 1 was rejected as being obvious over Miyamoto et al. in view of Suwa and Suzuki et al.

With regard to claim 2, Applicant submits that Miyamoto et al. fails to teach or suggest all of the limitations of the claim. In particular, Miyamoto et al. does not disclose a circuit board for packaging two circuits of a semiconductor laser drive circuit for controlling the driving of the semiconductor laser and a motor drive circuit for controlling the driving of the motor, the circuit board being provided in an area a predetermined distance apart from an area where the motor is placed in the frame body. Instead, Miyamoto et al. discloses a motor drive circuit 10 (col. 2, lines 47-48) mounted on wiring board 11, and a separately

and externally provided laser drive circuit as part of a laser unit 12 (col. 2, lines 59-63) in FIGS. 4-6.

The Examiner points to FIG. 7A of Miyamoto et al. as allegedly illustrating the claimed circuit board. Claim 2 includes a circuit board for packaging two circuits of a semiconductor laser drive circuit for controlling the driving of the semiconductor laser and a motor drive circuit for controlling the driving of the motor. By contrast, FIGS. 7A-8 of Miyamoto et al. illustrate a single IC device 208 mounted on circuit board 211. *See col. 5, lines 50-54.* Thus, Miyamoto et al. does not disclose the claimed circuit board of claim 2. Therefore, claim 2 and its dependent claim 4 are not anticipated by Miyamoto et al.

With further regard to claim 4, Applicant submits that Miyamoto et al. does not teach or suggest a motor mounting member only having a motor mounting function and disposed between the motor and the frame body, wherein the motor is mounted inside the frame body via the motor mounting member. FIGS. 7A and 7B illustrate a third embodiment of the scanning optical device of Miyamoto et al. The Examiner contends that the bottom, inside of the housing 201 of FIG. 7B corresponds to the claimed motor mounting member. FIG. 7B illustrates that the motor 203 is mounted on the inside, bottom of the housing 201. However, there is no disclosure in Miyamoto et al. of a motor mounting member only having a motor mounting function and disposed between the motor and the frame body. First, the housing 201 on which the motor 203 is mounted is not a motor mounting member disposed between the motor and the frame body. Rather, the housing 201 is the housing for the device and is also the mounting

location for the motor 203. There is no motor mounting member disposed therebetween. Second, the housing 201 functions as an enclosure and mounting structure for the entire device, as well as a mounting structure for the motor 203. Hence, the housing 201 does not have only a motor mounting function. Therefore, Applicant submits that claim 4 is not anticipated by Miyamoto et al. for this additional reason.

With regard to the rejection of claim 3, Applicant submits that there is no teaching, suggestion, or motivation to combine the teachings of the references. The Examiner admits that Miyamoto et al. does not disclose a circuit board made of paper phenol, but applies Suwa as disclosing circuit boards made of paper phenol. The Examiner asserts that the motivation to combine Suwa's teaching with the teachings of Miyamoto et al. would have been to use a rigid but low cost material to carry the electronic components. However, there is no teaching or suggestion of a need or desire in Miyamoto et al. for a rigid or low cost material for carrying electronic components. Although using a rigid, low cost material for a circuit board may be desirable for certain devices, there is no specific teaching, suggestion, or motivation that such a circuit board would have been desirable for the device taught by Miyamoto et al.

Furthermore, there is no need to form the board from paper phenol in Miyamoto et al., because Miyamoto et al. provides a radiator 10R for accelerating the heat dissipation of the driving circuit 10. *See col. 3, lines 28-29.*

Therefore, Applicant submits that claim 3 is allowable over the prior art.

For claim 6, Applicant submits that Miyamoto et al. and Suwa do not teach or suggest the claimed first and second flexible cables. The Examiner concedes that Miyamoto et al. does not disclose flexible cables, but asserts that Suwa does. Suwa discloses conductive elastic members 5 and 5' (FIGS. 2 and 3), having alternate insulative layers 5a and conductive layers 5b. The conductive elastic members 5 and 5' are used to connect and hold together layers of circuit boards 2, 3, and 4 in a housing 1 of an electronic unit. *See Suwa at col. 2, lines 11-30.*

Claim 6 of the present application recites "a first flexible cable for connecting the circuit board provided outside the frame body and the motor placed inside the frame body." Suwa fails to disclose a cable which is connecting a circuit board provided outside of a frame body and a motor placed inside a frame body. The conductive elastic members 5 and 5' connect circuit boards 2, 3, and 4 to each other, all of which are contained inside a housing 1 of an electronic unit.

Moreover, the conductive elastic members of Suwa do not correspond to flexible cables. Although the conductive elastic members are conductive, Applicant submits that the conductive elastic members do not correspond to cables, even under a broad reading of the term "cable." Rather, the conductive elastic members are more akin to connectors, which connect circuit boards together, electronically and mechanically. *See Suwa at col. 2, lines 26-30.*

For reasons analogous to those described above in relation to the first flexible cable, Applicant submits that Suwa fails to teach or suggest the second flexible cable claimed in claim 6.

In light of the foregoing, Applicant submits that claim 6 is allowable over the prior art.

Applicant submits that claim 5 is allowable over the prior art, at least because of its dependence from claim 2, and because Suzuki et al. fails to make up for the deficiencies of Miyamoto et al. described above.

Regarding claim 1, Applicant submits that the claim is allowable over the prior art for reasons analogous to those for claims 2, 3, and 6. Also, Suwa and Suzuki et al. fail to make up for the deficiencies of Miyamoto et al. described above.

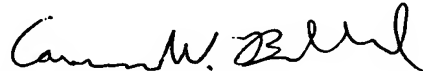
New claims 7-16 are added to further define the present invention and are believed to be allowable, at least because of their dependence from claims 1, 2, and 3, respectively.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #010755.51346).

Respectfully submitted,

September 27, 2005



Jeffrey D. Sanok  
Registration No. 32,169  
Cameron W. Beddard  
Registration No. 46,545

CROWELL & MORING LLP  
Intellectual Property Group  
P.O. Box 14300  
Washington, DC 20044-4300  
Telephone No.: (202) 624-2500  
Facsimile No.: (202) 628-8844  
JDS:CWB:vlc  
#391866